Response to Office Action mailed 9/15//2008

Examiner: FARIS S ALMATRAHI

Art Unit: 3609

Title: Compact Item Descriptor, Catalog System and Item Part Number Validation

Application Number: 10/602,301

Inventor: Norman Ken Ouchi

Date: November 10, 2008

Action is Final

Claims 1-8, 10-17 and 21-24 are pending where claims 12-17 and 21-24 are withdrawn from consideration

Claims 1-8, 10 and 11 are rejected.

Drawings filed on June 24, 2003 are objected to by the Examiner under 37 CFR 1.83

Claims 1-8, 10 and 11 are rejected under U.S.C. 35 103(a) as unpatentable over Blutinger et al U.S. Patent 5,231,566 in view of Brathwaite et al U.S. Publication 2003/0221172 A1 and Kavanagh et al U.S. Patent 5,838,965.

Discussion of Issues

Overview

For claim 1, the term "defining" has been replaced with "providing" to distinguish between elements that are provided: the first and second items, the classification tree, and the sets of parameters for each leaf; from the steps of the present invention: adding labels to the branches and leaf at each fork, generating the commodity code, encoding the parameters, and generating the compact item identifier. Specifically, an example of a classification tree is provided by RosettaNet for the electronics industry in paragraph [0025].

1) 37 CFR 1.83 Drawings

Tables 1 through 6 are included in the specification of the present invention along with Drawings 1 through 4 to illustrate the claimed invention. Tables 1 through 4 are, as described in paragraph [0051], illustrative SQL relational data base row entries where any field may be used as a query parameter to access a row or set of rows through an SQL query. Specifically, Table 4 illustrates the providing of the first item, second item, and third item. Tables 1 through 3 illustrates a provided classification tree and the adding of labels at each fork the characters for each branch and leaf used to generate the commodity code as further illustrated in Figure 3. Paragraphs [0051] – [0055] in conjunction with Tables 1 through 3 and Figure 3 illustrate and describe the step by step process of generating a commodity code, systematically appending a suffix for a branch or leaf, encoding a set of

parameters including illustrative values, and generated compact item description as illustrated in Table 4. Figure 4 illustrates a part number. Table 4 further illustrates three catalog entries each providing item description, supplier name, and supplier part number in respective fields. Table 4 illustrates a SQL table where the item description field may be queried.

The nature of the present invention is more suitably illustrated as SQL tables with illustrative rows rather than drawings. One of ordinary skill in the field of interest should understand these very simple SQL table definitions.

2) 35 USC 101

Claim 1 is for a "method to generate a compact item descriptor, a machine readable character string, such that two different items that generate the same compact item descriptor are interchangeable". The compact descriptor is tangible and readable by machines and people in catalogs, AML's, and other documents and systems related to items. <u>The method generates compact item descriptors for the first item and second item independent of the interchangeability of the items.</u> The term "if and only if" is very precise and used extensively in mathematical and logic statements. The use of "if and only if" is related to the interchangeability of the first and second items where these are interchangeable when the compact descriptors are identical and are not interchangeable when the compact descriptors are not identical.

However, since the term "if and only if" is not acceptable, the phrase, "where two different items that classify to the same leaf and same parameter values are interchangeable or those that do not are not interchangeable" has been substituted.

3) 35 USC 112

A) Claim 1 has been amended to correct the 112 issue identified where the first and second items are now provided and the compact item descriptor is generated. The "leaf node" has been changed to "leaf". The inventor has reviewed the other claims to assure that the verbs correspond to the specification.

B) Claims 1-8 and 10-11 have been amended to remove the phrase "such that".

C) Claim 1 has been amended to remove the phrase "if and only if".

Claim 2 and similar claims have been amended to replace the references to AML etc. with references to a database from which AML, catalog, and material planning systems are implemented. The specification these database implemented systems did not add to the claims and causes confusion. The inventor appreciates the Examiner identifying these issues.

The claims are amended to remedy the U.S.C. 35 112 rejections and the other issues cited by the Examiner. The inventor sincerely appreciates the Examiner's comments and descriptions of these rejections for each of the claims.

4) U.S.C. 35 103(a)

A) Blutinger teaches the use of a classification tree to categorize items where each item entry includes a commodity code for each leaf item. Blutinger is mute as to the method of generation of the commodity code. Prior art commodity codes were assigned by an organization in arbitrary fashion to categorize items with similar features but were not systematically generated based on a classification tree. Prior art commodity codes applied

10/602,301   Compact Item Descriptor, Catalog System and Item Part Number Validation Patent Application
Confidential N. K. Ouchi   Page 2 of 16

PAGE 3/17 * RCVD AT 11/10/2008 11:06:42 AM [Eastern Standard Time] * SVR:USPTO-EFXRF-5/34 * DNIS:2738300 * CSID:408 555 4466 * DURATION (mm-ss):13-44

to multiple leafs of the classification tree and did not provide sufficient resolution to distinguish a specific leaf. Blutinger does not teach the use of a commodity code to specify items that share a significant number of characteristics. (Column 3 lines 19-37) Blutinger describes the issues of the prior art item descriptions where manual operations are required to distinguish between items with text based item descriptions. (Column 9 line 63 – Column 10 line 15) Blutinger describes the process for adding an item where "an item number unique to the item" is assigned. (Column 4 lines 53-54) Blutinger does not teach the generation of an item identifier based on the classification of the item but just assigns an arbitrary number much as part numbers are assigned.

A1) Blutinger does not teach the further specification of items that share a leaf with parameters with values that further specify and distinguish items.

A2) Blutinger does not teach providing a commodity tree with leaf parameters where two items that classify to the same leaf with the same leaf parameter values are interchangeable or those that do not are not interchangeable.

A3) Blutinger does not teach labeling at each fork, the branch and leaf to distinguish each selection for a classification.

A4) Blutinger does not teach the generation of a commodity code by appending the label for each selection of a branch or the terminal leaf as the item is classified resulting in a string that uniquely identifies the classification of the item.

A5) Blutinger does not teach the ordering of the parameters at a leaf and the specification of sub-string lengths to encode the parameter values for an item to complete its description.

A6) Blutinger does not teach the concatenation of the commodity code derived by the classification of an item to a leaf with encoded parameters for the item at the leaf to form the compact item descriptor.

A7) Blutinger does not teach comparing the compact item descriptor of a first item with that of a second item to determine if the items are interchangeable.

A8) Blutinger does not teach the use of a compact item descriptor as the description of the item or other data element in databases to determine interchangeable items or to access associated data for the items.

B1) Kavanagh teaches a classification tree with a set of parameters at each leaf to further specify an item. While Kavanagh does not specifically state that items with the same classification and parameter values are interchangeable, the prior art including the RosettaNet catalog cited in the specification provide this capability. The present invention relies on this prior art capability. (Column 66 lines 31-54. Note: the communications indicated Column 70 lines 31-54 but this reference did not appear to be applicable and the inventor found the column 66 lines 31-54 to be more applicable.) Kavanagh is an example of the prior art with the short comings cited in the specification of the present invention.

B2) Kavanagh provides a graphical classification of an item and displays the branches and leaf of the classification. (Figure 18 and many other figures; Column 32 lines 4-26). While Kavanagh displays the name of the branches and leaf of the classification, Kavanagh does not label each branch and leaf at each fork with a character or sub-string in addition to the class names. (Column 34 lines 31-36) The coded, short length labels are necessary to minimize the total length of the resulting compact item descriptor. Kavanagh does not have

as an objective, a compact string encoded to represent the classification of an item. This feature is absent in the prior art and not suggested by the prior art.

B3) Kavanagh does not teach the generation of a commodity code by appending the label for each selection of a branch or the terminal leaf as the item is classified resulting in a string that uniquely identifies the classification of the item. Kavanagh does not even teach the generation of a string by appending the class names of the branches and leaf of the classification. Such a string, while identifying the classification, would be very long and significantly longer than many commercial database fields used for materials management and component catalogs. Representation of the classification of an item as a compact string is absent in Kavanagh, the prior art and not suggested by the prior art.

B4) Kavanagh does not teach the ordering of the parameters at a leaf for external use and the specification of sub-string lengths to encode the parameter values for an item as a string to complete its description. (Column 54 line 63 – Column 55 line 40) Representation of the encoded values of a leaf as a string is absent in Kavanagh, the prior art, and not suggested by the prior art.

B5) Kavanagh does not teach the concatenation of the commodity code derived by the classification of an item to a leaf with encoded parameters for the item at the leaf to form the compact item descriptor. Representation of the classification and parameter values of an item as a string is absent in Kavanagh, the prior art, and not suggested by the prior art.

B6) Kavanagh does not teach comparing the compact item descriptor of a first item with that of a second item to determine if the items are interchangeable. Comparison of the representations of the classification and parameter values of items to determine interchangeability is absent in Kavanagh, the prior art, and not suggested by the prior art.

B7) Kavanagh does not teach the use of a compact item descriptor as the description of the item or other data element in databases to determine interchangeable items or to access associated data for the items. Use of the representation of the classification and parameter values of an item as the description of an item for systematic processing is absent in Kavanagh, the prior art, and not suggested by the prior art.

5) Per Claim 2, while Blutinger teaches storing an item descriptor in materials planning system, Blutinger does not teach storing a compact item descriptor in the database with the disclosed system enabling features of determining interchangeability and partial matching as provided by the present invention. The item descriptor of Blutinger and the prior art are free form text fields with limited systematic processing.

6) Per Claim 11, while Kavanagh provides for a query that returns a suffix, neither Kavanagh nor Blutinger teach the storing of a compact item descriptor in the database with the disclosed system enabling features for determining interchangeability and partial matching as provided by the present invention. The item descriptor of Kavanagh, Blutinger and the prior art are free form text fields with limited systematic processing.

7) Per Claims 3-8 and 10, Brathwaite teaches a database with multiple separate tables for each parameter or characteristic which are multiply queried to provide the results of a single query for the present invention. (Figures 5, 6, and 7; Abstract, paragraphs [0014], [0052], [0070]) Neither Brathwaite, Kavanagh, nor Blutinger teach the storing of a compact item description with the disclosed system enabling features in the database for determining interchangeability and partial matching as provided by the present invention.

Summary

The Drawing issues have been discussed to include the Tables. The inventor believes additional drawings or changes are not required and hopes the Examiner agrees.

The Claims have been amended to remove the 35 U.S.C. 101 and 112 issues identified by the Examiner and additional amendments were made for issues identified by the inventor.

For 35 U.S.C. 103, Blutinger, Kavanagh, and Brathwaite are examples of the prior art as described in the specification of the present invention.

Representations of the classification of an item as a compact string, encoded values of a leaf as a compact string, classification and parameter values of an item as a string; systematic comparison of the representation of classification and parameter values of items to determine interchangeability; use of the representation of the classification and parameter values of an item as the description of an item for systematic processing and access in databases; and access with partially matching query arguments are all absent in Blutinger, Kavanagh, and Brathwaite, the prior art and not suggested in the prior art.

The present invention provides significant functions absent in the prior art including those that currently require manual processing or multiple database accesses with complex processing. The present invention provides systematic processing of item information, usually the item description, currently stored as free form text that requires tedious, error prone, manual processing for key steps of the materials management processes.

The present invention is significantly different for that taught by the prior art and serves a very useful purpose. The claims have been amended to point out and distinctly claim this subject matter as described.

Claims are grouped as claims 1-8, 10-11; 25-28; 29-31 where claims 1, 25, and 29 are independent claims. Claims 25-31 are new.

The inventor is happy to send a Word file which displays both mark-up and final form. Please send an e-mail to Ken.Ouchi@Avidtecs.com and a reply e-mail with the file will be sent.

The inventor appreciates the Examiner's through search and thoughtful response.

Please call the inventor after reading his response so we may discuss any concerns.

Respectfully Submitted

N. K. Ouchi, Inventor
Phone 408-757-5862